Application No. 10/534,731 Paper Dated: October 24, 2008

In Reply to USPTO Correspondence of July 24, 2008

Attorney Docket No. 5486-051342

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claims 1-8: (Cancelled).

- 9. (Currently Amended) A method of welding a sintered aluminum alloy, characterized by <u>pressure sintering an aluminum alloy powder</u>, thereby forming sintered <u>pieces</u>, and friction stir welding <u>the sintered pieces prepared by pressure sintering rapid-solidified aluminum alloy powder</u>.
- 10. (Currently Amended) The welding method of claim 9, wherein the sintered pieces are composite material prepared by pressure sintering stepfurther comprises pressure sintering a mixture of rapid-solidified an aluminum alloy powder with ceramic particle.
- 11. (Previously Presented) The welding method of claim 10, wherein the ceramic particle has an average particle diameter of 10 μ m or less.
- 12. (Previously Presented) The welding method defined by claim 9, wherein the friction stir welding is performed using a welding tool having a radius of shoulder within a range of 6-25 mm provided with a rotating pin of 3-10 mm in length and 3-10 mm in diameter under conditions of: a rotation rate of the rotating pin within a range of 500-3000 r.p.m., a travel speed within a range of 200-1000 mm/minute and a pushing depth of a rotator shoulder within a range of 0-1 mm.
- 13. (Currently Amended) The welding method defined by claim 10, wherein a welding aid, made of an aluminum alloy dispersing the same ceramic particle as in the sintered piece, is sandwiched between or mounted on the sintered pieces, and friction stir welded together with the sintered pieces.
- 14. (Currently Amended) The welding method defined by claim 109, wherein the sintered pieces are friction stir welded together with a welding aid, made of an

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aluminum alloy free of ceramic particle, being sandwiched between or mounted on the sintered pieces.

- 15. (Previously Presented) The welding method of claim 13, wherein the welding aid has a T- or H-shaped section, a vertical wall of the T-shaped section or a web of the H-shaped section being sandwiched between the sintered pieces.
- 16. (Previously Presented) The welding method of claim 15, wherein the welding aid comprises a first part to be sandwiched between the sintered pieces and another part not to be sandwiched between the sintered pieces, the first part having a ratio of ceramic particles different from the other part.
- 17. (Previously Presented) The welding method of claim 14, wherein the welding aid has a T- or H-shaped section, a vertical wall of the T-shaped section or a web of the H-shaped section being sandwiched between the sintered pieces.
- 18. (Previously Presented) The welding method of claim 17, wherein the welding aid comprises a first part to be sandwiched between the sintered pieces and another part not to be sandwiched between the sintered pieces, the first part having a ratio of ceramic particles different from the other part.
- 19. (New) The welding method of claim 9, wherein the aluminum alloy powder has an average particle size of 20-100 μm .
- 20. (New) The welding method of claim 9, wherein the pressure sintering step is performed by gas atomizing the aluminum alloy powder.